

1. Basics of Information Technology

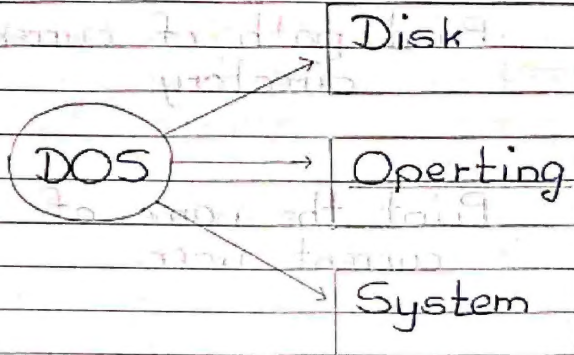
classmate

Date _____
Page _____

Exercise

Q.1 Complete the following activity.

1)



2) Tick the appropriate box.

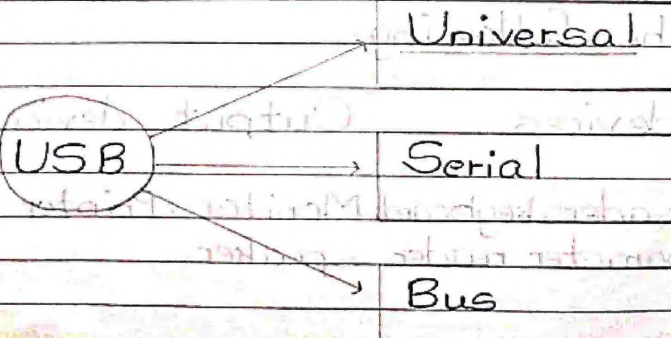
Internet is a network connecting millions of computer

Regional

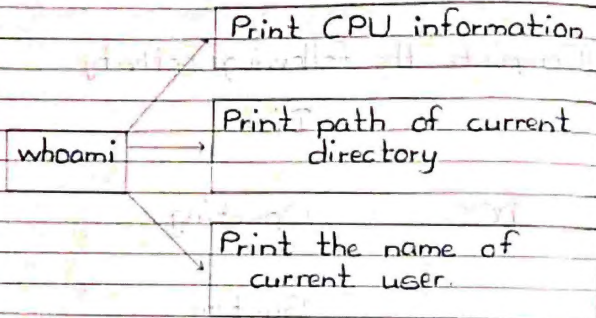
Global ☒

Local

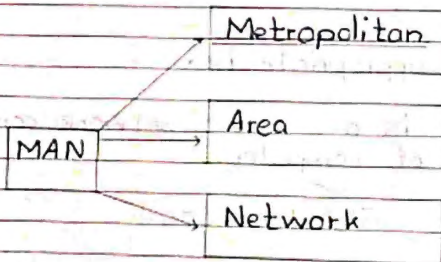
3)



4) Tick the appropriate box.



5)



Q.2 Divide the following.

| Input devices | Output devices |
|---|----------------------------|
| Barcode reader, keyboard, Optical character reader. | Monitor, Printer, speaker. |

Q.3 Multiple choice two correct answers

- 1) The primary memory consist of RAM and ROM.
- 2) The network architectures which are widely used are Peer to peer and Client - server.

Q.4 Match the following

| 'A' | Answers |
|--------|-------------------------------|
| 1) LS | List of directory |
| 2) FTP | To transfer files on internet |
| 3) CD | change directory |
| 4) DNS | Translates Network address |

Q.8 Complete the Long forms

- 1) LAN Local Area Network

2)

GUI

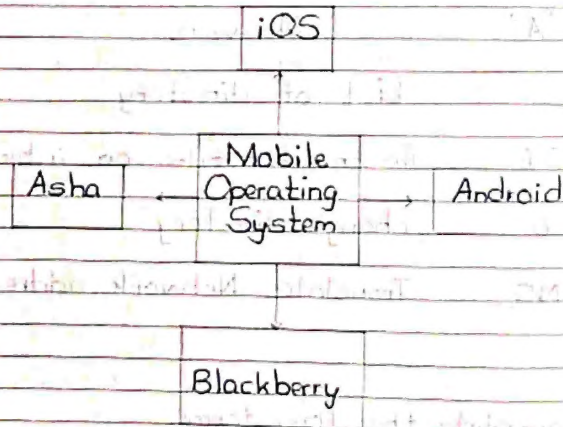
Graphical User Interface

3)

OSS

Open Source Software

Q. 5 Complete the diagram



Q. 6 Complete the following with Linux commands with their use

Commands

It's use.

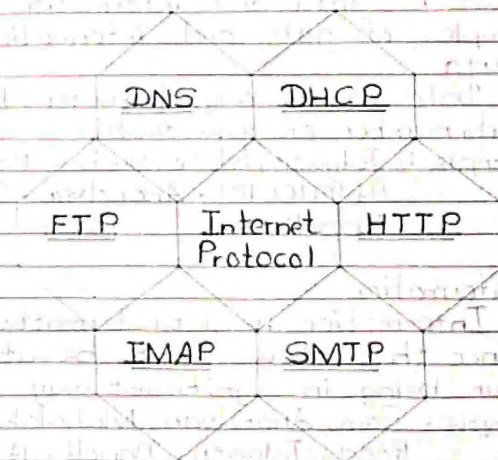
pwd

Print working directory

ls

Print list directory

Q. 7 Complete the list of following protocols



Q.9. Identify the following activity

You are typing a letter using a computer and suddenly there is a power failure. Which type of memory does this activity deal?

→ This activity deal with Random Access Memory (RAM)

Q.10. Answer the following

i) What is data and information? Give examples of data and information.

→ i) Data

Data can be any character, text, word, number or raw facts.

Example: Jalgaon, Mahalakshmi Road, 9899100101, Anandvan, Sam, Dapoli.

ii) Information

Information is data formatted in a manner that allows it to be utilized by human being in significant way.

Example: Sam, Anandvan, Mahalakshmi Road, Jalgaon, Dapoli, 9899100101

2) Explain functional units of a computer system.

Functional units of Computer system

| | | |
|------------|-------------------------|-------------|
| Input unit | Central Processing unit | Output unit |
|------------|-------------------------|-------------|

1) Input unit - This unit helps users to enter data and command into a computer system.
Ex - keyboard, mouse, barcode reader, etc.

2) Central processing unit - This unit processes data and commands according to the instruction provided.

a) Arithmetic and Logic unit - Performs arithmetic operations and logical functions.

b) Control unit - Responsible for co-ordinating tasks between all components.

c) Memory unit - Stores data.

3) Output unit - This unit displays the processed data to users.

3) What is a storage unit? Explain types of primary memory storage.
→ Memory / storage unit - Storage unit is unit which stores the data.

• Types of primary memory

i) RAM

- i) It stands for Random Access Memory.
- ii) It is read/write memory.
- iii) It is main but temporary memory.
- iv) The information stored in this memory is lost as the power supply is switched off.
- v) It is volatile memory.

2) ROM

- i) It stands for Read Only memory.
- ii) It is permanent type of memory.
- iii) Content is not lost when power supply is switched off.
- iv) Content of ROM is decided by computer manufacturer.
- v) It is non-volatile memory.

4) Explain how Linux is different from Windows.

| Linux | Windows |
|---|---|
| i) Linux is open source and free to use. | i) Windows is closed source and not free. |
| ii) Linux is more efficient in operations as compared to Windows. | ii) Windows is less efficient as compared to Linux. |
| iii) Linux is highly secure. | iii) Windows provides less security as compared to Linux. |

5) Write down difference between LAN, MAN and WAN.

→ I) LAN (Local Area Network)

- i) It covers smaller geographical area and are privately owned.
- ii) Usage areas limited to areas such as office building, home, hospital, schools, etc.
- iii) It covers short distance so error and noise is minimized.
- iv) It is easy to setup.
- v) Data transmits at very fast rate.
- vi) It is less expensive hardware and maintainance cost is low.

II) MAN (Metropolitan Area Network)

- It covers larger area than LAN and smaller area than WAN.
- It connects 2 or more computers from same or different cities.
- It serves as ISP (Internet Service Provider).
- It is hard to design and maintain a MAN.
- Ex- Part of telephone company network that can provide high-speed DSL line to customer or cable TV network.

III) WAN (Wide Area Network)

- It covers large geographical Area.
- It might be confined within bounds of state or country.
- WAN could be connection of LAN connecting to other LAN's via telephone lines and radio waves.
- It is high speed and expensive.
- Due to long distance transmission noise and error tends to more in WAN.

Saturday

3/10/20

Q.1 Fill in the blanks.

- ROM is also called as 'non-volatile memory.'
- 1024 Mega Bytes = 1 Giga Byte.
- Windows Phone O.S. is developed by Microsoft for Mobile Phones.
- Control unit is backbone of computers.
- FOSS stands for Free Open Source Software.

Q.2 State true or false.

- AI refers to data sets that are too large for traditional data processing.
- False
- The first workable prototype of internet came in late 1960's. - True
- LAN is limited to areas such as an office building, home, schools, etc. - True

4) ALU does basic mathematical calculations - True.

5) The word computer is derived from a Spanish word - False.

Q. 3 Choose one correct alternative.

- 1) The Linux is an open source, portable, multi user operating system.
- 2) The LAN covers a short distance, and so error and noise are minimized.
- 3) The AI is intelligence demonstrated by machines.
- 4) Web designer can develop interactive website using knowledge of HTML, PHP.
- 5) HTTP is an internet based protocol for sending and receiving web pages.

Q. 4 Answer the following.

- 1) Open source O.S for PC - Chrome, Linux

2) Popular IT Enabled services - Data centers, GIS mapping.

3) Types of protocol used for communication of internet - TCP/IP, HTTP

Q. 5 Match the pairs.

| 'A' | Answers | 'B' |
|-------------------|---------|----------------------|
| 1) Android | 5 | 1) Closed software |
| 2) RAM | 4 | 2) Application soft. |
| 3) Windows | 1 | 3) Career in I.T. |
| 4) Game developer | 3 | 4) Primary memory |
| | | 5) Google |

3. Impressive Web Designing

13/10/20

Tuesday

Q Write Javascript code to print addition of two numbers. (Use $a = 20$, $b = 50$).

Ans.

```
<!DOCTYPE html>
<html>
<head><title>Addition of two numbers
</title></head>
<body>
<script language="javascript">
var a, b, c;
a = 20;
b = 50;
c = a + b;
document.write("Addition of numbers: " + c);
</script>
</body>
</html>
```

Q Write javascript code to accept the name from the user then welcome him/her along with the name

Ans

```
<!DOCTYPE html>
<html>
<head>
<title>A Javascript Program</title>
</head>
<body>
<script language="javascript">
var b;
b = 10;
document.write(b)

var b;
b = prompt("Enter your name");
alert("Welcome to Javascript" + a);
</script>
</body>
</html>
```


Q. Write a javascript program to print perimeter of rectangle. Accept length and width value from user.

```
<!DOCTYPE html>
<html>
<head><title>Perimeter of rectangle
</title></head>
<body bgcolor="orange">
<h1>Program to calculate Perimeter
of rectangle</h1>
<script language="javascript">
var l, b, ar perimeter;
l = prompt("Enter length of rectangle");
b = prompt("Enter breadth of rectangle");
ar perimeter = 2 * l + 2 * b;

document.write("<h1>Entered length:
</h1>" + l);
document.write("<h1>Entered breadth:
</h1>" + b);
document.write("<h1>Perimeter of
rectangle : </h1>" + perimeter);

</script>
</body></html>
```

Saturday

7/11/20

Q. Write javascript code to print the following series using for loop.
11 12 13 14 20

```
<!doctype html>
<html><head>
<title> Iteration in Java </title>
</title></head>
<body>
<script language="javascript">
var num = 11;
while (num <= 20)
{
document.write(num + " ");
num ++
}

</script>
</body></html>
```

3. Impressive Web designing

Exercise

Q.1 Answer the following.

- i) The data entry operator wants to insert
 - i) Photograph
 - ii) Write remarks about the photograph
 - iii) Underline the heading

He will use:

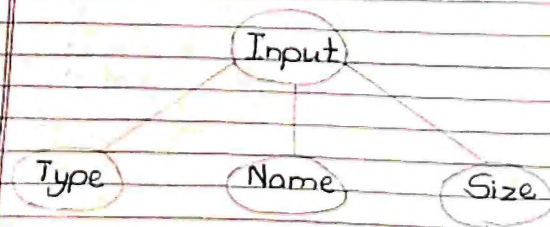
- i) ``
- ii) `<TextArea>`
- iii) `<U>`

2) Identify logical operators in Javascript

- i) `||`
- ii) `&&`

Q.2 Complete following activity.

i) State atleast 3 attributes of `<Input>`



2) Physical tags

i) `<sub>` for H_2O

ii) `<i>` for Hello

iii) `<sup>` for a^{12}

3) i) Paired tags :

- i) ``
- ii) `<u>`
- iii) `<i>`
- iv) `<sup>`
- v) ``

2) Empty/unpaired tags :

- i) `
`
- ii) ``
- iii) `
`

4) Relational operators :

- i) `<`
- ii) `>`
- iii) `<=`
- iv) `>=`
- v) `=`
- vi) `!=`

- 5) Complete following program to display multiplication of 6.40 and 300.

```
<!DOCTYPE html><html>
<head><title>Series</title></head>
<body>
```

```
<script language="javascript">
```

```
var x = 6.40 ;
```

```
var y = 300 ;
```

```
document.write (x * y);
```

```
</script>
```

```
</body></html>
```

- Q.3 Find out error if any in following javascript code.

```
var length, breadth;
length = 4.5;
breadth = 6;
area = 1/2 * length * breadth;
document.write ("Area of triangle is"
               area);
```

→ Above code has error in last line. The corrected line is document.write ("Area of triangle is" + area);

- Q.4 Solve the following puzzle.

- A) Fill the blocks

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

- 1) Across

- The tag used to create table row
- Tag to create a form.

- 2) Down

- The attribute used to specify the path of a linked document.
- The tag used to display horizontal ruled line.

- 8) Solve puzzle by finding words with the help of hint given below.

```

p z c b e p e s
r l o m v d l l
s k n s a r s t
y e f a l s e d
w q i s n a n g
v a r o s d y z
i l m e n c x i

```

- 1) Boolean value
 - 2) Keyword used in conditional if statement
 - 3) Built-In function in Javascript
 - 4) Function to check given value is number or not.
 - 5) Keyword used to declare variable
 - 6) Function used to evaluate given expression
- 1) false 2) else 3) confirm 4) isNaN
5) var 6) eval

Q. 5 Trace output of following html code.

```

<!DOCTYPE html><html>
<head><title>Heading tags</title>
</head>
<body>
<h1 align=left>Information Technology
</h1>

```

```

<br>
<h2 align=center>X.I Standard</h2>
<h3 align=right>Division</h3>
</body></html>

```

Information Technology

X.I Standard

Division

Q. 8 Complete the following

| Event | When occurs? |
|-----------|--|
| onClick | When user clicks an element |
| onKeyUp | When user releases key. |
| onMouseup | When user releases a mouse button over an element. |

Q. 9 Write HTML Code for following table

| Place | State | Maximum Temperature in °C |
|-----------|----------------|---------------------------|
| Wardha | Maharashtra | 47.5 |
| Akola | | 46.54 |
| Khajuraho | Madhya Pradesh | 46.4 |
| Sagar | | 46.2 |

→

```

<!DOCTYPE html>
<html><head>
<title> Table </title> </head>
<body>
<table border="1">
<tr bgcolor="pink">
<th> Place </th>
<th> State </th>
<th> Maximum Temperature in °C </th>
</tr>
<tr bgcolor="skyblue">
<td> Wardha </td>
<td rowspan="2"> Maharashtra </td>
<td> 47.5 </td>
</tr>

```

```

<tr bgcolor="skyblue">
<td> Akola </td>

```

```

<td> 46.4 </td> </tr>

```

```

<tr bgcolor="skyblue">
<td> Khajuraho </td>
<td rowspan="2"> Madhya Pradesh </td>
<td> 46.4 </td> </tr>

```

```

<tr bgcolor="skyblue">
<td> Sagar </td>
<td> 46.2 </td> </tr>

```

```

</table>
</body> </html>

```

Q. 10 Multiple choice one correct answer.

- 1) The default method of submitting form data is Get.
- 2) In JavaScript the post increment operator is x++.

Q 6 Discuss the following and answer the questions

- 1) A Jr. web designer wants to design a webpage to enter the employee name, address. He needs a button to clear the form content and submit the data.
 - Write different controls he will use to create web page.
 - State the tags to be used for the controls

→

Enter employee name: `<input type="text" name="name">` `
`
 Enter address: `<input type="text" name="address">` `
`
`<input type="reset" value="clear form">`
`<input type="submit" value="submit">`

- 2) A teacher has asked a student to create a web page to accept number and check whether it is between 50 to 100.
 - List the variable, operators to be used.
 - Specify the built-in function used and structure used

→

```
var num;
if(num > 50 && num < 100)
```

Q 7 Create webpages for the following.

- 1) Write program using HTML to design your class time table

→

```
<!DOCTYPE html><html>
<head><title>Time table</title>
</head>
<body>
<table border="1" bordercolor="red"
align="center" bgcolor="blue">
<caption><b>Time table</b></caption>

<tr>
<td>Time</td>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
<td>Saturday</td>
</tr>
```

```
<tr>11:00-11:40
<td>11:00-11:40</td>
<td>Chem</td>
<td>Phy</td>
<td>Chem</td>
<td>Phy</td>
<td>Chem</td>
```



```
<td>Phy </td>
</tr>
```

```
<tr>
```

```
<td>Maths </td>
```

```
<td>I.T </td>
```

```
<td>I.T </td>
```

```
<td>Chem </td>
```

```
<td>Maths </td>
```

```
<td>I.T </td>
```

```
</tr>
```

```
<tr>
```

```
<td>Phy </td>
```

```
<td>Maths </td>
```

```
<td>Phy </td>
```

```
<td>Maths </td>
```

```
<td>Eng </td>
```

```
<td>Chem </td>
```

```
</tr>
```

```
<tr>
```

```
<td>Eng </td>
```

```
<td>Eng </td>
```

```
<td>Maths </td>
```

```
<td>Marathi </td>
```

```
<td>Maths </td>
```

```
<td>Marathi </td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

```
</html>
```

- 2) Write program using HTML to create a form and submit it with personal data like name, address and standard.

```
<!DOCTYPE html><html>
```

```
<head><title>Form </title></head>
```

```
<body>
```

```
<form name="f1">
```

```
Enter your name:<input type="text"
name="t1"><br>
```

```
Enter your standard:
```

```
<input type="radio" name="r1"> XIth
```

```
<input type="radio" name="r2"> XIIth
<br>
```

```
Enter your address:
```

```
<textarea name="t2"></textarea>
```

```
<br>
```

```
<input type="submit" name="b1"
value="submit">
```

```
</form>
```

```
</body></html>
```

- 3) Write a javascript program to accept two numbers and perform addition of two numbers by using mouseover event.

```
<!DOCTYPE html><html>
<head><title>Add</title></head>
<body>
<script language="javascript">
var a,b,c;
a=prompt("Enter any number");
b=prompt("Enter another number");
c=a+b;
```

```
document.write("Addition of two numbers  
is" + c)
```

```
<input type="button" value="button"  
onMouseOver="display(c)">
```

```
</script>
</body>
</html>
```

Tuesday

24/11/20

- Q1 Write javascript code to print perimeter of trapezium. accept required values from user.

(Hint: $pr = a + b + c + d$)

```
<!doctype html>
<head>
<title>Perimeter of Trapezium</title>
</head>
<body>
<h1>Perimeter of Trapezium</h1>
```

```
<script language="javascript">
var a,b,c,d,pr;
a=parseInt(prompt("Enter 1st base  
value:"));
b=parseInt(prompt("Enter 2nd base  
value:"));
c=parseInt(prompt("Enter 1st side  
value:"));
d=parseInt(prompt("Enter 2nd side  
value:"));
```

```
pr = a + b + c + d;
document.write("Perimeter of Trapezium:"  
+ pr);
```

```
</script>
</body>
</html>
```


First Semester Exam

Friday

11/12/20

Q-2 State true or false.

- 1) The GET value of method attribute used to hide data on address bar.
→ False

Q-1 Fill in the blanks:

- 1) _____ is the backbone of computers.
→ Control unit
- 2) _____ tag is used to display text as deleted text.
→
- 3) An _____ defines property for an element.
→ attribute
- 4) _____ is a built-in function used in convert value into integer.
→ parseInt()
- 5) Touch screen is the example of _____ device.
→ input

Q-2 State true or false.

- 1) The GET value of method attribute used to hide data on address bar.
→ False
- 2) LAN covers larger geographical area than MAN.
→ False
- 3) String data type used to store text in JavaScript.
→ True
- 4) tag is a container tag.
→ False

Q-3 Select one correct alternative.

- 1) _____ can be any character, text, word, number or raw fact.
→ d) Data
- 2) Following is valid singular tag used.
→ b)

- 3) _____ software is used by proprietary and has closely guarded code.
→ a) closed source

4) _____ attribute of `<th>` and `<td>` tag is used to merge number of cells into single cell in a same row of table

→ a) colspan

5) _____ is an address of a web page on internet

→ c) URL

6) _____ attribute is used to specify the maximum no. of characters allowed in `<textarea>` tag.

→ c) maxlength

7) The first two versions of the _____ operating system, introduced in 1985 and 1985 respectively.

→ a) Windows

8) _____ keyword used to declare variables in JavaScript.

→ b) var

9) The _____ unit reproduces data formatted by computer for user's benefit.

→ c) Output

10) _____ function in JavaScript is used to convert given string into lower case alphabet.

→ c) toLowerCase()

Q.4 Select two correct alternatives.

1) Following are relational operators used to check conditions or comparison of operands.

→ a) `<=`
d) `>=`

2) Following are types of network based on geographical area they cover.

→ a) LAN
e) MAN

3) Following are attributes used to make default selection in Radio button, Checkbox and Drop Down List.

→ b) Selected
c) Checked

4) Following are some IT enabled services.

→ a) Call centers
c) GIS mapping

5) JavaScript provides following data types to store and use different types of values.

→ a) Number
b) Boolean

Q.5 Select three correct alternatives.

1) Following are basic components of computer.

- a) Input unit
c) CPU
e) Output unit

2) Correct method to declare variable

- a) var a;
b) var a, b;
d) var a, b, c;

Q.6 Match the following.

| Column A | Answers |
|------------|----------------------------------|
| 1) onKeyUp | b) occurs when a key is pressed. |
| 2) <h3> | c) one of heading level tag |
| 3) Null | f) no value at all |
| 4) ++i | a) Pre-increment |

Q.7 Answer the following.

1) What is variable? Give rules to declare variables.

→ Variable - It is a basic unit of storage in a Javascript program.

Rules to declare variables:

- They must start with alphabet.
- Variable name in javascript is limited up to 225 characters.
- Uppercase and lowercase are distinct. This means that variable 'sum' is not same as 'SUM'.
- It should not contain blank space or special symbol except underscore.
- Standard keyword are not allowed as variable name. e.g. document, while.

2) Give recent trends in IT.

-
- Green computing
 - Internet of Things (IoT)
 - Cloud computing
 - Data analytics
 - Artificial Intelligence (AI)
 - Machine Learning (ML)

vii) Big Data
viii) Blockchain

3) Describe following functions-

a) parseFloat()

→ This function is used to parse a string and convert it into floating point representation.

b) prompt()

→ This function is used when you want input value from user at the time of program execution.

4) Give features of JavaScript

- i) It perform input data validation.
- ii) It is light weight scripting language.
- iii) It is case sensitive language.
- iv) It make web pages more interactive.
- v) It can handle data and time effectively.

5) Explain <input> tag & its attributes.

→ It is used to make form elements like textbox, radiobutton, checkbox, etc

Attributes :

- i) type
- ii) name
- iii) maxlength
- iv) size
- v) checked
- vi) value

Q.8 Solve program

- 1) Design a Feedback form in HTML5 that accepts name, address, city, zip code, e-mail address and comment from user. Buttons should be provided for clearing and submitting the form.

→

```
<!doctype html>
<html><head>
<title>Feedback form </title>
</head>
<body>
<form name = "f1">
Name : <input type = "text" name = "t1">
<br>
```

```
Address : <textarea name = "ta1" row = "5"
cols = "20">
</textarea> <br>
```


City :

```
<select name="ct">
<option value="Khed">Khed
<option value="Chiplun">Chiplun
<option value="Dapoli">Dapoli
<option value="Guhagar">Guhagar
</select><br>
```

Zip code : <input type="text" name="t2">

E-mail : <input type="text" name="t3">

Comment : <textarea name="ta2"
row="4" cols="12">


```
<input type="submit" value="submit"
value="submit">
<input type="reset" name="reset"
value="clear">
```

```
</form>
</body>
</html>
```

- 2) Write Javascript program to print perimeter of trapezium, accept required values from user (Hint: $p = a + b + c + d$)

```
<!doctype html>
<head>
<title>Perimeter of Trapezium</title>
</head>
<body>
<h1>Perimeter of Trapezium Program</h1>
<script language="javascript">
var a, b, c, d, p;
a=parseInt(prompt("Enter 1st base
value:"));
b=parseInt(prompt("Enter 2nd base
value:"));
c=parseInt(prompt("Enter 1st side
value:"));
d=parseInt(prompt("Enter 2nd side
value:"));
p= a + b + c + d;
```

```
document.write("Perimeter of Trapezium:"
+ p);
```

```
</script>
</body>
</html>
```